

## PATENT COOPERATION TREATY

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

United States Patent and Trademark  
Office  
(Box PCT)  
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Washington, DC 20231  
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 06 July 1998 (06.07.98)	
International application No. PCT/US96/18477	Applicant's or agent's file reference MANN17322PCT
International filing date (day/month/year) 18 November 1996 (18.11.96)	Priority date (day/month/year)
Applicant MANN, S., Edward, II et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:  
17 June 1998 (17.06.98)

☐ in a notice effecting later election filed with the International Bureau on:  
\_\_\_\_\_

2. The election ☒ was

☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer J. Leitao Telephone No.: (41-22) 338.83.38
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# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: TODD E. ALBANESI  
CRUTSINGER & BOOTH  
1601 ELM STREET  
SUITE 1950  
DALLAS, TX 75201-4744

## PCT

### NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

<p>Date of Mailing (day/month/year) <b>19 OCT 1998</b></p>			
<p>Applicant's or agent's file reference <b>MANN17322PCT</b></p>		<p><b>IMPORTANT NOTIFICATION</b></p>	
<p>International application No. <b>PCT/US96/18477</b></p>	<p>International filing date (day/month/year) <b>18 NOVEMBER 1996</b></p>	<p>Priority Date (day/month/year) <b>NONE</b></p>	
<p>Applicant <b>MANN II, S. EDWARD</b></p>			

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

<p>Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231</p>	<p>Authorized officer <b>JOSEPH FEILD</b> <i>Diane Smith for</i></p>
<p>Facsimile No. (703) 305-3230</p>	<p>Telephone No. (703) 308-5465</p>

## PATENT COOPERATION TREATY

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## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference MANN17322PCT	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US96/18477	International filing date (day/month/year) 18 NOVEMBER 1996	Priority date (day/month/year) NONE
International Patent Classification (IPC) or national classification and IPC IPC(6): G06F 3/00, 7/00 and US Cl.: 395/761, 329, 336; 434/308		
Applicant MANN II, S. EDWARD		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 13 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 17 JUNE 1998	Date of completion of this report 17 SEPTEMBER 1998
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer JOSEPH FEILD <i>Diane Smith for</i>
Facsimile No. (703) 305-3230	Telephone No. (703) 308-5465

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US96/18477

**I. Basis of the report**

1. This report has been drawn on the basis of *(Substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments):*

☐ the international application as originally filed.

☒ the description, pages 1-23 , as originally filed.

pages NONE , filed with the demand.

pages NONE , filed with the letter of \_\_\_\_\_.

pages \_\_\_\_\_ , filed with the letter of \_\_\_\_\_.

☒ the claims, Nos. NONE , as originally filed.

Nos. NONE , as amended under Article 19.

Nos. 1-37 , filed with the demand.

Nos. NONE , filed with the letter of \_\_\_\_\_.

Nos. \_\_\_\_\_ , filed with the letter of \_\_\_\_\_.

☒ the drawings, sheets/fig 1-11 , as originally filed.

sheets/fig NONE , filed with the demand.

sheets/fig NONE , filed with the letter of \_\_\_\_\_.

sheets/fig \_\_\_\_\_ , filed with the letter of \_\_\_\_\_.

2. The amendments have resulted in the cancellation of:

☒ the description, pages NONE .

☒ the claims, Nos. NONE .

☒ the drawings, sheets/fig NONE .

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the ~~Supplemental Box~~ Additional observations below (Rule 70.2(c)).

4. Additional observations, if necessary:

NONE

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US96/18477

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

Novelty (N)

Claims 1-37 YESClaims NONE NO

Inventive Step (IS)

Claims 1-37 YESClaims NONE NO

Industrial Applicability (IA)

Claims 1-37 YESClaims NONE NO**2. CITATIONS AND EXPLANATIONS**

Claims 1-37 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest the feature of "a user interface transmit[ing] an instruction set having a plurality of instructions for selection by a user and receives at least one selected instruction based upon said instruction set, said at least one selected instruction designating a target from a plurality of independently-executable computer applications... and a target application interface that receives at least some of said plurality of actions and that selectively issues some of said plurality of actions for externally operating the target application and that relays feedback from the target application back through the data interpreter to the user interface" in claims 1-25, and the prior art does not teach or fairly suggest the feature of a computerized tutorial interface with a "computer application selector ...select[ing] a computer program ...from the plurality of independently executable ...programs", "interfac[e] ...for issuing simulated user input to the selected ...program to execute a function of the selected ...program" and "means ...for causing the computerized, multimedia tutorial interface system to completely relinquishing control to the computer ...program" in claims 26-37.

Further, claims 1-37 meet the criteria of PCT Article 33(4) because the computer tutorial user interface has use in the computer operated interactive educational applications.

----- NEW CITATIONS -----

NONE

What we Claim is:

1. A computer-executable system that selectively operates any of a plurality of independently-executable applications, the system comprising:

a user interface that transmits an instruction set having a plurality of instructions for selection by a user and receives at least one selected instruction based upon  
5 said instruction set, said at least one selected instruction designating a target application from a plurality of independently-executable computer applications;

a data retrieval interface that retrieves a plurality of data from a computer memory, said plurality of data based upon said at least one selected instruction;

a data interpreter that receives said data and said at least one selected  
10 instruction, said data interpreter translates said data into a plurality of actions with respect to said target application and said data; and

a target application interface that receives at least some of said plurality of actions and that selectively issues some of said plurality of actions for externally operating the target application and that relays feedback from the target application back through the  
15 data interpreter to the user interface.

2. The system of claim 1, wherein said data additionally includes a video clip for the target application that the data interpreter passes to the user interface for display to the user.

3. The system of claim 2, wherein after externally operating the target application, the data interpreter selectively passes control of the target application to the user through the user interface.

4. The system of claim 3, wherein the data interpreter further comprises: user instruction means, error message issuance means, and evaluation means, whereby tutorial feedback is provided to the user when the user has control of the target application.

5. The system of claim 1, further comprising:  
a peripheral interface that receives at least some of said plurality of actions and selectively issues some of the actions for operating a peripheral device having an embedded instruction set and a communications port and that relays feedback from the peripheral device back through the data interpreter to the user interface, thereby demonstrating the operation of the peripheral device to the user.

6. The system of claim 5, wherein said data additionally includes a video clip for the peripheral device that the data interpreter passes to the user interface for display to the user.

7. The system of claim 5, wherein after externally operating the peripheral device, the data interpreter selectively passes control of the peripheral device to the user through the user interface.

8. The system of claim 7, wherein the data interpreter further comprises: user instruction means, error message issuance means, and evaluation means, whereby tutorial feedback is provided to the user when the user has control of the peripheral device.

9. The system of claim 1, further comprising:  
a host interface that receives at least some of said plurality of actions and that selectively issues some of the actions for directly operating a host system.

10. The system of claim 1, wherein the data retrieval interface comprises:  
a peripheral storage device controller for interfacing with a local storage device storing said data.

11. The system of claim 1, wherein the data retrieval interface comprises:  
a network interface for accessing an other device over a network and for retrieving said data stored on said other device.

12. The system of claim 1, wherein the data retrieval interface comprises:  
a wireless interface for accessing an other device over a wireless link and for retrieving said data stored on said other device.



13. A system that selectively operates any of a plurality of connected independently-operable peripheral devices, the system comprising:

5 a user interface that transmits an instruction set having a plurality of instructions for selection by a user and that received at least one selected instruction based upon said instruction set, said at least one selected instruction designating a target peripheral device from a plurality of independently-operable peripheral devices

a data retrieval interface that retrieves a plurality of data from a computer memory, said plurality of data based upon said at least one selected instruction;

10 a data interpreter that receives said plurality of data and said at least one selected instruction, said data interpreter translates said data into a plurality of actions with respect to aid target peripheral device and said plurality of data; and

a peripheral interface that receives at least some of said plurality of actions and selectively issues some of said actions for externally operating a peripheral device having an embedded instruction set and a communications port for interfacing with said peripheral interface and that relays feedback from the peripheral device back through the data  
15 interpreter to the user interface.

14. The system of claim 13, further comprising:

a target application interface that receives at least some of said plurality of actions and selectively issues some of said plurality of actions for operating a target application selected from a plurality of target applications and that relays feedback from the  
5 target application back through the data interpreter to the user interface.

15. The system of claim 13, wherein said data additionally includes a video clip for the target application that the data interpreter passes to the user interface for display to the user.

16. The system of claim 15, wherein after externally operating the target application, the data interpreter selectively passes control of the target application to the user through the user interface.

17. The system of claim 16, wherein the data interpreter further comprises: user instruction means, error message issuance means, and evaluation means, whereby tutorial feedback is provided to the user when the user has control of the target application.

5 18. The system of claim 13, further comprising:  
a host interface that receives at least some of said plurality of actions and selectively issues some of said plurality of actions for directing an operation of a host system.

19. The system of claim 13, wherein the data retrieval interface comprises:  
a peripheral storage device controller that interfaces with a local storage device for accessing said plurality of data.

20. The system of claim 13, wherein the data retrieval interface comprises:  
a network interface for accessing an other device containing said plurality of data over a network.

21. The system of claim 14, wherein the data retrieval interface comprises:  
a wireless interface for accessing an other device containing said plurality of data over a wireless link.

22. A computer-implemented method for selectively operating any of a plurality of independently-executable computer applications, the method comprising the steps of:

receiving from a user a selected instruction from a set of instructions, the selected instruction designating a target application from the plurality of executable computer applications;

retrieving from a computer memory a plurality of data with respect to the selected instruction;

translating the plurality of data into a plurality of actions with respect to the target application;

transmitting the plurality of actions to the target application for externally operating the target application; and

relaying feedback from the target application back to the user.

23. The method of claim 22, wherein the plurality of data additionally includes a video clip related to the target application, and further comprising the step of displaying the video clip to the user.

24. The method of claim 23, wherein after externally operating the target application, selectively passing control of the target application to the user.

25. The method of claim 24, further comprising the step of: providing tutorial feedback to the user when the user has control of the target application.

26. A computerized, multimedia tutorial interface system for training a user to use any of a plurality of independently executable computer application software programs, the system comprising:

- 5 (a) computer application program selector, wherein the computer application software program selector receives an instruction from a user and causes the computerized, multimedia tutorial interface system to select a computer application software program from the plurality of independently executable computer application software programs;
- 10 (b) control display means for displaying a control window on a computer screen, the control window providing a plurality of instructions to a user that may be selected by the user, wherein the instructions include instructions for displaying audiovisual images describing operations of the selected computer application software program;
- 15 (c) instruction input means for receiving a user instruction from a user;
- (d) instruction interpretation means for receiving the user instruction from the instruction input means, for interpreting the user instruction based upon the selected computer application software program to generate an execution instruction, and for selectively issuing the execution instruction to element
- 20 (e), (f) or (g) based upon the user instruction;
- (e) audiovisual enablement means for receiving an execution instruction from the instruction interpretation means, for selectively retrieving audiovisual information responsive to the execution instruction, and for displaying the audiovisual information on at least a portion of a computer screen, wherein

the audiovisual information includes audiovisual images describing  
25 operations of the selected computer application software program;

(f) computer application software interface means for receiving an execution  
instruction from the instruction interpretation means, for interfacing with the  
selected computer application software program, and for issuing simulated  
30 user input to the selected computer application program to execute a  
function of the selected computer application software program that is  
described in the audiovisual image; and

(g) computer application software control means for receiving an execution  
instruction from the instruction interpretation means, for causing the  
computerized, multimedia tutorial interface system to completely relinquish  
35 control to the computer application software program to allow a user to  
execute functions within the computer application software program, and for  
causing the computerized, multimedia tutorial interface system to gain  
control from the computer application software program based upon user  
input.

27. The computerized, multimedia training system of claim 25 further  
comprising:

(a) user instruction monitoring means for monitoring user instructions  
issued to the instruction input means by a user.

28. The computerized, multimedia training system of claim 25 further comprising:

- 5 (a) error message issuance means for issuing an error message to a user on a computer screen if the user issues a user instruction to the instruction input means that is erroneous as compared to expected instructions.

29. The computerized, multimedia training system of claim 25 further comprising:

- 5 (a) evaluation means for evaluating the user instructions issued to the instruction input means by a user and for issuing a summary of the user's performance in issuing the user instructions.

30. The computerized, multimedia training system of claim 25 wherein the control display means comprises a display bar having commands selected from a group of commands including at least exit, rewind, goto, fast forward, stop, back, pause, and play.

31. The computerized, multimedia training system of claim 25 wherein the audiovisual information is displayed in a window on a computer screen adjacent to, and not overlying, the control window.

32. A computerized, multimedia tutorial interface method for training a user to use any of a plurality of independently executable computer application software programs, the method comprising the steps of:

- 5 (a) displaying a list of the plurality of independently executable computer application software programs to a user;
- (b) receiving a software application program selection instruction from the user and, based upon the software application program selection instruction, selecting an application software program from the plurality of independently executable computer application software programs;
- 10 (c) displaying a control window on a computer screen, the control window providing a plurality of instructions to a user that may be selected by the user, wherein the instructions include instructions for displaying audiovisual images describing operations of the selected computer application software program;
- 15 (d) receiving a user instruction from a user;
- (e) based upon the selected computer application software program, interpreting the user instruction to generate an execution instruction;
- (f) based on the execution instruction and the selected computer application software program, selectively retrieving audiovisual information;
- 20 (g) based on the execution instruction, displaying the audiovisual information on at least a portion of a computer screen, wherein the



audiovisual information includes audiovisual images describing operations of the selected computer application software program;

(h) based on the execution instruction, executing a function of the computer application software program that is described in the audiovisual information by issuing simulated user input to the selected computer application software program;

(i) based on the execution instruction, completely relinquishing control to the selected computer application software program to allow a user to execute functions within the selected computer application software program; and

(j) based on user input, regaining control from the selected computer application software program.

33. The computerized, multimedia training method of claim 32 further comprising the step of:

(a) monitoring user instructions issued by a user.

34. The computerized, multimedia training method of claim 33 further comprising the step of:

(a) issuing an error message to a user on a computer screen if a user issues a user instruction that is erroneous as compared to reference user instructions.

35. The computerized, multimedia training method of claim 32 further comprising the steps of:

- (a) evaluating the user instructions issued by a user; and
- (b) based upon the user instructions issued by the user, issuing a summary of the user's performance in issuing the user instructions.

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36. The computerized, multimedia training method of claim 32 wherein the step of displaying a control window on a computer screen includes displaying on a control bar commands selected from a group of commands including at least exit, rewind, goto, fast forward, stop, back, pause, and play.

37. The computerized, multimedia training method of claim 32 wherein in the step of displaying the audiovisual information on at least a portion of a computer screen, the audiovisual information is displayed in a window on a computer screen adjacent to, and not overlying, the control window.



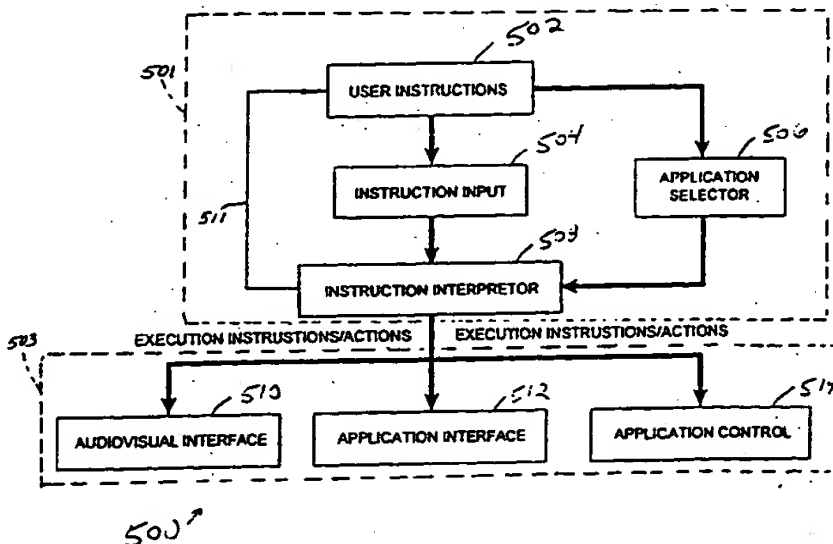
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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			(43) International Publication Date: <b>28 May 1998 (28.05.98)</b>
(21) International Application Number: <b>PCT/US96/18477</b>		(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: <b>18 November 1996 (18.11.96)</b>			
(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application US <b>08/541,221 (CIP)</b> Filed on <b>12 October 1995 (12.10.95)</b>			
(71)(72) Applicants and Inventors: <b>MANN, S., Edward, II [US/US]; 11020 Huebner Oaks #1136, San Antonio, TX 78230 (US). MILLIOT, Frederick [FR/FR]; 18, rue P. de Coubertin, F-91330 Yerres (FR).</b>		Published <i>With international search report.</i> <i>With amended claims.</i>	
(74) Agent: <b>ALBANESI, Todd, E.; Crutsinger &amp; Booth, Suite 1950, 1601 Elm Street, Dallas, TX 75201-4744 (US).</b>			

(54) Title: **COMPUTER TUTORIAL AND EXECUTION INTERFACE OPERABLE OVER NETWORK CONNECTION**

(57) Abstract

A computerized, multimedia tutorial and execution system (10) and method for training a user to use computer application software and for automatically operating application software and peripheral devices. The system incorporates the techniques of instructional video segments, on-line tutorials and execution operation, written instructions and learning-by-doing lessons. The system and method incorporates the video segments into the system so that they may be displayed on a computer screen (26). User input is given by way of a mouse (22), keyboard (30), or by voice through an audio interface (34). Once the video clip is displayed or any appropriate instruction is given on a video window (55), the system preferably runs a set of instructions, within the computer application software environment or directed to a peripheral device, to execute and demonstrate the exact sequence of actions that were discussed as instructions. Once this is completed, the user is then given an opportunity to execute the same functions as previously described and executed by the system. The system may also include monitoring to ensure that correct instructions are being executed by the user or automatically, as well as to monitor the progress being made within the application software environment. Preferred applications of the system and method of the present invention include application software, on-line services, and other complicated computer software systems.



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What we Claim is:

1. A computer-executable system that selectively operates any of a plurality of independently-executable computer applications, the system comprising: ..

5 a user interface that transmits an instruction set having a plurality of instructions for selection by a user and that receives at least one selected instruction based upon said instruction set, said at least one selected instruction designating a target application from a plurality of independently-executable computer applications;

a data retrieval interface that retrieves a plurality of data from a computer memory, said plurality of data based upon said at least one selected instruction;

10 a data interpreter that receives said data and said at least one selected instruction, said data-interpreter translates said data into a plurality of actions with respect to said target application and said data; and

15 a target application interface that receives at least some of said plurality of actions and that selectively issues some of said plurality of actions for externally operating the target application.

2. The system of Claim 1, further comprising:

a peripheral interface that receives at least some of said plurality of actions and selectively issues some of the actions for operating a peripheral device having an embedded instruction set and a communications port.

3. The system of Claim 1, further comprising:

a host interface that receives at least some of said plurality of actions and that selectively issues some of the actions for directly operating a host system.

4. The system of Claim 1, wherein the data retrieval interface comprises:  
a peripheral storage device controller for interfacing with a local storage device storing said data.

5. The system of Claim 1, wherein said data retrieval interface comprises:  
a network interface for accessing an other device over a network and for retrieving said data stored on said other device.

6. The system of Claim 1, wherein said data retrieval interface comprises:  
a wireless interface for accessing an other device over a wireless link and for retrieving said data stored on said other device.

7. A system that selectively operates any of a plurality of connected independently-operable peripheral devices, the system comprising:

a user interface that transmits an instruction set having a plurality of instructions for selection by a user and that receives at least one selected instruction based upon said instruction set, said at least one selected instruction designating a target peripheral device from a plurality of independently-operable peripheral devices;

a data retrieval interface that retrieves a plurality of data from a computer memory, said plurality of data based upon said at least one selected instruction;

a data interpreter that receives said plurality of data and said at least one selected instruction, said data interpreter translates said data into a plurality of actions with respect to said target peripheral device and said plurality of data; and

a peripheral interface that receives at least some of said plurality of actions and selectively issues some of said actions for externally operating a peripheral device having an embedded instruction set and a communications port for interfacing with said peripheral interface.

8. The system of Claim 7, further comprising:

a target application interface that receives at least some of said plurality of actions and selectively issues some of said plurality of actions for operating a target application selected from a plurality of target applications.

9. The system of Claim 7, further comprising:  
a host interface that receives at least some of said plurality of actions and selectively issues some of said plurality of actions for directing an operation of a host system.
10. The system of Claim 7, wherein the data retrieval interface comprises:  
a peripheral storage device controller that interfaces with a local storage device for accessing said plurality of data.
11. The system of Claim 7, wherein the data retrieval interface comprises:  
a network interface for accessing an other device containing said plurality of data over a network.
12. The system of Claim 8, wherein the data retrieval interface comprises:  
a wireless interface for accessing an other device containing said plurality of data over a wireless data link.



13. A computer-implemented method for selectively operating any of a plurality of connected independently-operable peripheral devices, the method comprising the steps of:

receiving from a user a selected instruction from a set of instructions, the  
5 selected instruction designating a target peripheral device from a plurality of independently-operable peripheral devices;

retrieving from a computer memory a plurality of data with respect to the selected instruction;

translating the plurality of data into a plurality of actions;

10 transmitting at least one of said plurality of actions through a peripheral interface that receives at least of some of said plurality of actions to a peripheral device in communication with the peripheral interface; and

controlling the peripheral device by executing the transmitted actions.

**AMENDED CLAIMS**

[received by the International Bureau on 18 March 1998 (18.03.98);  
original claims 1-13 replaced by amended claims 1-37 (13 pages)]

1. A computer-executable system that selectively operates any of a plurality of independently-executable applications, the system comprising:
  - a user interface that transmits an instruction set having a plurality of instructions for selection by a user and receives at least one selected instruction based upon
  - 5 said instruction set, said at least one selected instruction designating a target application from a plurality of independently-executable computer applications;
  - a data retrieval interface that retrieves a plurality of data from a computer memory, said plurality of data based upon said at least one selected instruction;
  - a data interpreter that receives said data and said at least one selected
  - 10 instruction, said data interpreter translates said data into a plurality of actions with respect to said target application and said data; and
  - a target application interface that receives at least some of said plurality of actions and that selectively issues some of said plurality of actions for externally operating the target application and that relays feedback from the target application back through the
  - 15 data interpreter to the user interface.
2. The system of claim 1, wherein said data additionally includes a video clip for the target application that the data interpreter passes to the user interface for display to the user.

3. The system of claim 2, wherein after externally operating the target application, the data interpreter selectively passes control of the target application to the user through the user interface.

4. The system of claim 3, wherein the data interpreter further comprises: user instruction means, error message issuance means, and evaluation means, whereby tutorial feedback is provided to the user when the user has control of the target application.

5. The system of claim 1, further comprising:  
a peripheral interface that receives at least some of said plurality of actions and selectively issues some of the actions for operating a peripheral device having an embedded instruction set and a communications port and that relays feedback from the peripheral device back through the data interpreter to the user interface, thereby demonstrating the operation of the peripheral device to the user.

6. The system of claim 5, wherein said data additionally includes a video clip for the peripheral device that the data interpreter passes to the user interface for display to the user.

7. The system of claim 5, wherein after externally operating the peripheral device, the data interpreter selectively passes control of the peripheral device to the user through the user interface.

8. The system of claim 7, wherein the data interpreter further comprises: user instruction means, error message issuance means, and evaluation means, whereby tutorial feedback is provided to the user when the user has control of the peripheral device.

9. The system of claim 1, further comprising:  
a host interface that receives at least some of said plurality of actions and that selectively issues some of the actions for directly operating a host system.

10. The system of claim 1, wherein the data retrieval interface comprises:  
a peripheral storage device controller for interfacing with a local storage device storing said data.

11. The system of claim 1, wherein the data retrieval interface comprises:  
a network interface for accessing an other device over a network and for retrieving said data stored on said other device.

12. The system of claim 1, wherein the data retrieval interface comprises:  
a wireless interface for accessing an other device over a wireless link and for retrieving said data stored on said other device.

13. A system that selectively operates any of a plurality of connected independently-operable peripheral devices, the system comprising:

a user interface that transmits an instruction set having a plurality of instructions for selection by a user and that received at least one selected instruction based upon said instruction set, said at least one selected instruction designating a target peripheral device from a plurality of independently-operable peripheral devices

a data retrieval interface that retrieves a plurality of data from a computer memory, said plurality of data based upon said at least one selected instruction;

a data interpreter that receives said plurality of data and said at least one selected instruction, said data interpreter translates said data into a plurality of actions with respect to said target peripheral device and said plurality of data; and

a peripheral interface that receives at least some of said plurality of actions and selectively issues some of said actions for externally operating a peripheral device having an embedded instruction set and a communications port for interfacing with said peripheral interface and that relays feedback from the peripheral device back through the data interpreter to the user interface.

14. The system of claim 13, further comprising:

a target application interface that receives at least some of said plurality of actions and selectively issues some of said plurality of actions for operating a target application selected from a plurality of target applications and that relays feedback from the target application back through the data interpreter to the user interface.

15. The system of claim 13, wherein said data additionally includes a video clip for the target application that the data interpreter passes to the user interface for display to the user.

16. The system of claim 15, wherein after externally operating the target application, the data interpreter selectively passes control of the target application to the user through the user interface.

17. The system of claim 16, wherein the data interpreter further comprises: user instruction means, error message issuance means, and evaluation means, whereby tutorial feedback is provided to the user when the user has control of the target application.

5 18. The system of claim 13, further comprising:  
a host interface that receives at least some of said plurality of actions and selectively issues some of said plurality of actions for directing an operation of a host system.

19. The system of claim 13, wherein the data retrieval interface comprises:  
a peripheral storage device controller that interfaces with a local storage device for accessing said plurality of data.

20. The system of claim 13, wherein the data retrieval interface comprises:  
a network interface for accessing an other device containing said plurality of data over a network.

21. The system of claim 14, wherein the data retrieval interface comprises:  
a wireless interface for accessing an other device containing said plurality of  
data over a wireless link.

22. A computer-implemented method for selectively operating any of a plurality  
of independently-executable computer applications, the method comprising the steps of:

receiving from a user a selected instruction from a set of instructions, the  
selected instruction designating a target application from the plurality of executable  
5 computer applications;

retrieving from a computer memory a plurality of data with respect to the  
selected instruction;

translating the plurality of data into a plurality of actions with respect to the  
target application;

10 transmitting the plurality of actions to the target application for externally  
operating the target application; and

relaying feedback from the target application back to the user.

23. The method of claim 22, wherein the plurality of data additionally includes  
a video clip related to the target application, and further comprising the step of displaying  
the video clip to the user.

24. The method of claim 23, wherein after externally operating the target  
application, selectively passing control of the target application to the user.

25. The method of claim 24, further comprising the step of: providing tutorial feedback to the user when the user has control of the target application.



26. A computerized, multimedia tutorial interface system for training a user to use any of a plurality of independently executable computer application software programs, the system comprising:

- 5 (a) computer application program selector, wherein the computer application software program selector receives an instruction from a user and causes the computerized, multimedia tutorial interface system to select a computer application software program from the plurality of independently executable computer application software programs;
- 10 (b) control display means for displaying a control window on a computer screen, the control window providing a plurality of instructions to a user that may be selected by the user, wherein the instructions include instructions for displaying audiovisual images describing operations of the selected computer application software program;
- 15 (c) instruction input means for receiving a user instruction from a user;
- (d) instruction interpretation means for receiving the user instruction from the instruction input means, for interpreting the user instruction based upon the selected computer application software program to generate an execution instruction, and for selectively issuing the execution instruction to element (e), (f) or (g) based upon the user instruction;
- 20 (e) audiovisual enablement means for receiving an execution instruction from the instruction interpretation means, for selectively retrieving audiovisual information responsive to the execution instruction, and for displaying the audiovisual information on at least a portion of a computer screen, wherein

25 the audiovisual information includes audiovisual images describing operations of the selected computer application software program;

(f) computer application software interface means for receiving an execution instruction from the instruction interpretation means, for interfacing with the selected computer application software program, and for issuing simulated user input to the selected computer application program to execute a function of the selected computer application software program that is described in the audiovisual image; and

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(g) computer application software control means for receiving an execution instruction from the instruction interpretation means, for causing the computerized, multimedia tutorial interface system to completely relinquish control to the computer application software program to allow a user to execute functions within the computer application software program, and for causing the computerized, multimedia tutorial interface system to gain control from the computer application software program based upon user input.

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27. The computerized, multimedia training system of claim 25 further comprising:

(a) user instruction monitoring means for monitoring user instructions issued to the instruction input means by a user.

28. The computerized, multimedia training system of claim 25 further comprising:

- 5 (a) error message issuance means for issuing an error message to a user on a computer screen if the user issues a user instruction to the instruction input means that is erroneous as compared to expected instructions.

29. The computerized, multimedia training system of claim 25 further comprising:

- 5 (a) evaluation means for evaluating the user instructions issued to the instruction input means by a user and for issuing a summary of the user's performance in issuing the user instructions.

30. The computerized, multimedia training system of claim 25 wherein the control display means comprises a display bar having commands selected from a group of commands including at least exit, rewind, goto, fast forward, stop, back, pause, and play.

31. The computerized, multimedia training system of claim 25 wherein the audiovisual information is displayed in a window on a computer screen adjacent to, and not overlying, the control window.

32. A computerized, multimedia tutorial interface method for training a user to use any of a plurality of independently executable computer application software programs, the method comprising the steps of:

- (a) displaying a list of the plurality of independently executable computer application software programs to a user;
- (b) receiving a software application program selection instruction from the user and, based upon the software application program selection instruction, selecting an application software program from the plurality of independently executable computer application software programs;
- (c) displaying a control window on a computer screen, the control window providing a plurality of instructions to a user that may be selected by the user, wherein the instructions include instructions for displaying audiovisual images describing operations of the selected computer application software program;
- (d) receiving a user instruction from a user;
- (e) based upon the selected computer application software program, interpreting the user instruction to generate an execution instruction;
- (f) based on the execution instruction and the selected computer application software program, selectively retrieving audiovisual information;
- (g) based on the execution instruction, displaying the audiovisual information on at least a portion of a computer screen, wherein the

audiovisual information includes audiovisual images describing operations of the selected computer application software program;

(h) based on the execution instruction, executing a function of the computer application software program that is described in the audiovisual information by issuing simulated user input to the selected computer application software program;

(i) based on the execution instruction, completely relinquishing control to the selected computer application software program to allow a user to execute functions within the selected computer application software program; and

(j) based on user input, regaining control from the selected computer application software program.

33. The computerized, multimedia training method of claim 32 further comprising the step of:

(a) monitoring user instructions issued by a user.

34. The computerized, multimedia training method of claim 33 further comprising the step of:

(a) issuing an error message to a user on a computer screen if a user issues a user instruction that is erroneous as compared to reference user instructions.

35. The computerized, multimedia training method of claim 32 further comprising the steps of:

- (a) evaluating the user instructions issued by a user; and
- (b) based upon the user instructions issued by the user, issuing a  
5 summary of the user's performance in issuing the user instructions.

36. The computerized, multimedia training method of claim 32 wherein the step of displaying a control window on a computer screen includes displaying on a control bar commands selected from a group of commands including at least exit, rewind, goto, fast forward, stop, back, pause, and play.

37. The computerized, multimedia training method of claim 32 wherein in the step of displaying the audiovisual information on at least a portion of a computer screen, the audiovisual information is displayed in a window on a computer screen adjacent to, and not overlying, the control window.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US96/18477

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(6) : G06F 3/00, 7/00

US CL : 395/761, 329, 336; 434/308

According to Inter. tional Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 395/761, 329, 336; 434/308

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS Search

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US, A, 5,385,475 (SUDMAN ET AL) 31 January 1995, col.2, line 43 to col.3, line 55, col.4, line 45 to col.5, line 55, FIGS. 10, 11 and 15.	1-4, 7-10, 13 ----- 5, 6, 11, 12
Y	US, A, 5,002,491 (ABRAHAMSON ET AL) 26 March 1991, col.3, lines 10-15, 55-68, col.4, line 1 to col.5, line 58, FIGS.1, 3A.	5, 6, 11, 12
A	US, A, 5,109,482 (BOHRMAN) 28 April 1992	1-13
A,P	US, A, 5,576,844 (ANDERSON ET AL) 19 November 1996.	1-13
A,P	US, A, 5,576,951 (LOCKWOOD) 19 November 1996.	1-13

☒ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

* Special categories of cited documents:	*T	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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*O		document referring to an oral disclosure, use, exhibition or other means
*P		document published prior to the international filing date but later than the priority date claimed
	*X	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
	*Y	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
	*&	document member of the same patent family

Date of the actual completion of the international search

29 JANUARY 1997

Date of mailing of the international search report

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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US96/18477

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US, A, 5,388,993 (MCKIEL ET AL) 14 February 1995.	1-13
A	US, A, 5,237,648 (MILLS ET AL) 17 August 1993.	1-13
A	US, A, 4,586,905 (GROFF) 06 May 1986	1-13
A	US, A, 5,311,422 (LOFTIN ET AL) 10 May 1994.	1-13